EP 0 720 338 A1

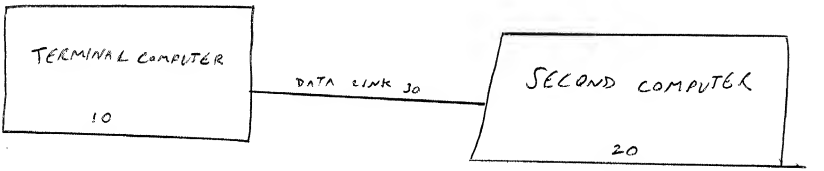
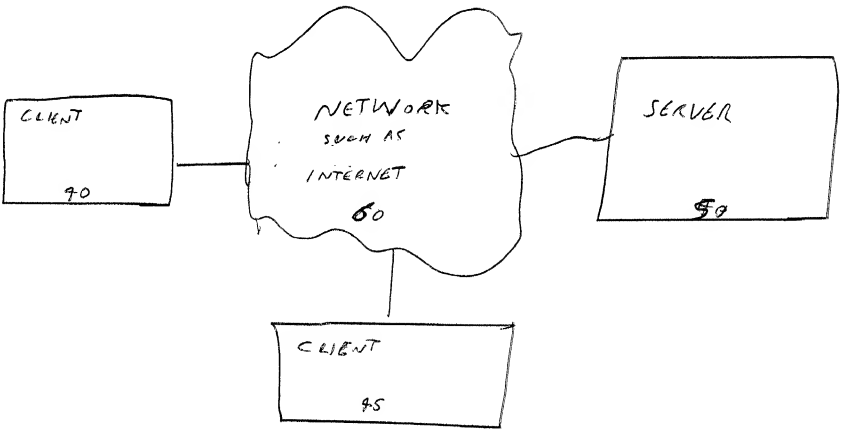


Fig. 1

PATENT APPLICATION



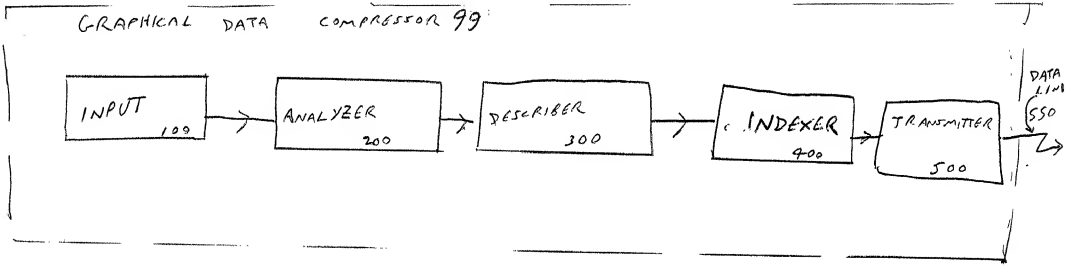

GRAPHICAL DATA COMPRESSOR 99
INPUT
100
ANALYZER
200
DESCRIBER
300
INDEXER
400
TRANSMITTER
500
DATA LINK
550

FIG. 3

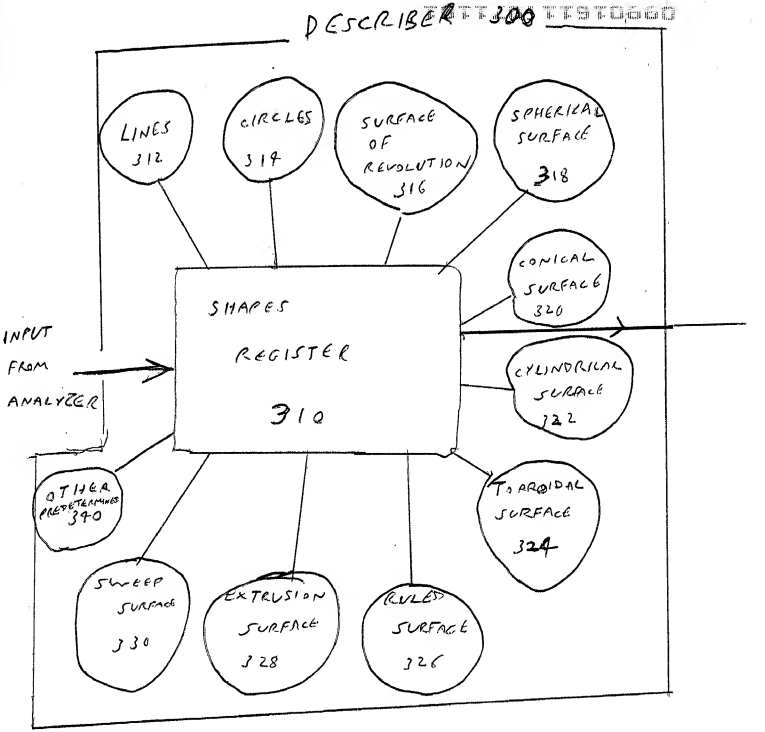

DESCRIBER 300
LINES 312
CIRCLES 314
SURFACE OF REVOLUTION 316
SPHERICAL SURFACE 318
CONICAL SURFACE 320
SHAPES REGISTER 310
INPUT FROM ANALYZER
CYLINDRICAL SURFACE 322
TOROIDAL SURFACE 324
RULED SURFACE 326
EXTRUSION SURFACE 328
SWEEP SURFACE 330
OTHER PREDETERMINED 340

Fig. 4

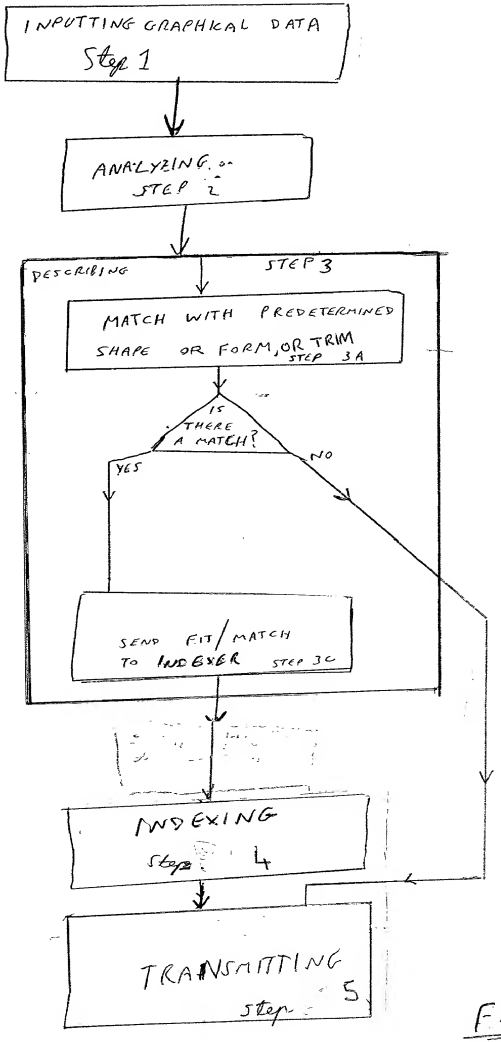

INPUTTING GRAPHICAL DATA
Step 1
ANALYZING
STEP 2
DESCRIBING
STEP 3
MATCH WITH PREDETERMINED SHAPE OR FORM, OR TRIM
STEP 3A
IS THERE A MATCH?
YES
NO
SEND FIT/MATCH TO INDEXER
STEP 3C
INDEXING
Step 4
TRANSMITTING
Step 5

FIG 5

EXHIBIT 1018

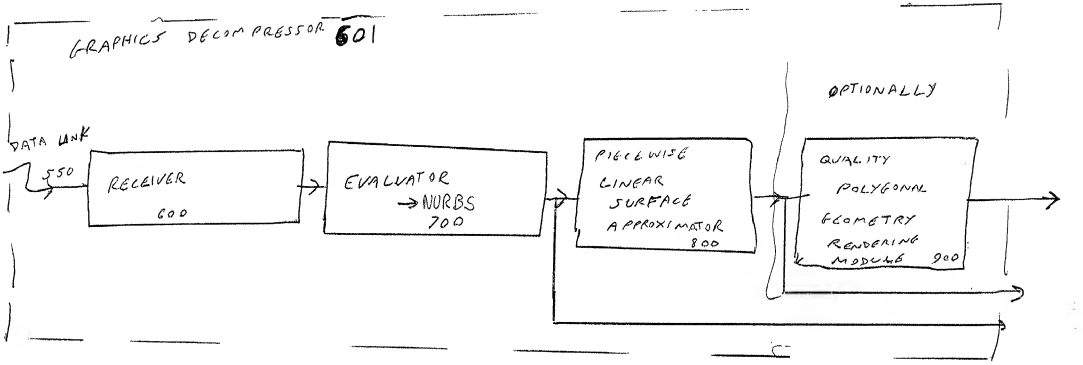


FIG. 6

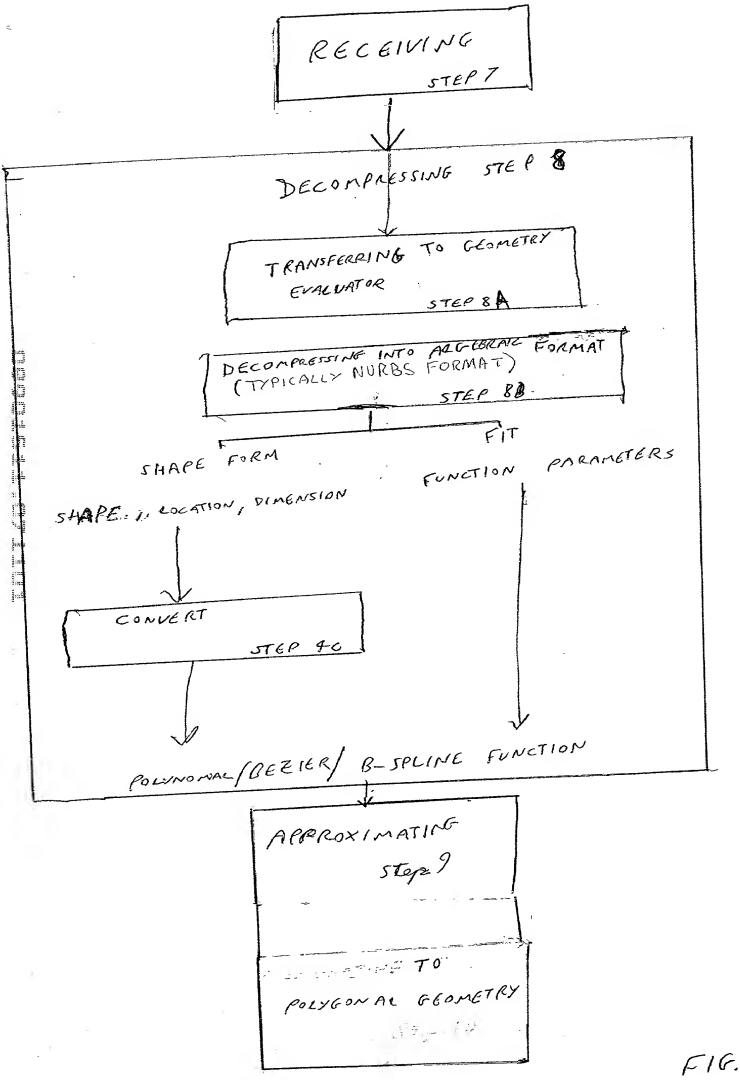

RECEIVING
STEP 7
DECOMPRESSING STEP 8
TRANSFERRING TO GEOMETRY EVALUATOR
STEP 8A
DECOMPRESSING INTO ALGEBRAIC FORMAT (TYPICALLY NURBS FORMAT)
STEP 8B
SHAPE FORM
FIT
FUNCTION PARAMETERS
SHAPE: i. LOCATION, DIMENSION
CONVERT
STEP 9C
POLYNOMAL/BEZIER/ B-SPLINE FUNCTION
APPROXIMATING
Step 9
TO
POLYGONAL GEOMETRY

FIG. 7

PCT/US97/05066

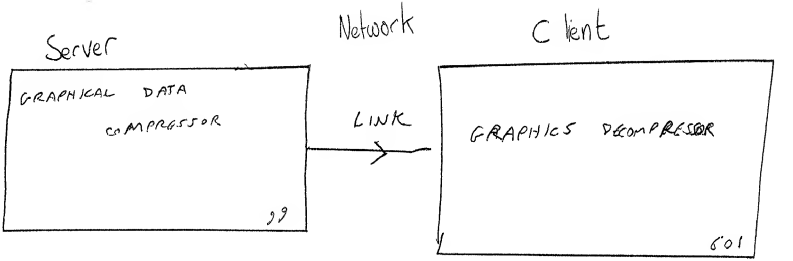


FIG. 8